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## Produktinformation



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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Anti-PSD95 Antibody [7E3]

Mouse Anti-Rat PSD95 Monoclonal IgG1  
Catalog No. SMC-123



Discovery through partnership | Excellence through quality

## Overview

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### Product Name

PSD95 Antibody

### Description

Mouse Anti-Rat PSD95 Monoclonal IgG1

### Species Reactivity

Human, Mouse, Rat, Bovine

### Applications

WB, IHC, ICC/IF

### Antibody Dilution

WB (1:1000), IHC (1:1000), ICC/IF (1:100); optimal dilutions for assays should be determined by the user.

### Host Species

Mouse

### Immunogen Species

Rat

### Immunogen

Recombinant rat PSD-95

### Concentration

1 mg/ml

### Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

## Properties

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### Storage Buffer

PBS pH7.4, 50% glycerol, 0.09% sodium azide

### Storage Temperature

-20°C

### Shipping Temperature

Blue Ice or 4°C

### Purification

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Protein G Purified

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### Clonality

Monoclonal

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### Clone Number

7E3

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### Isotype

IgG1

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### Specificity

Detects ~100kDa. An additional protein of >100kDa is also detected. Additional cross-reactive bands are detected at ~75kDa and 50kDa in rat and mouse samples.

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### Cite This Product

Mouse Anti-Rat PSD 95 Monoclonal, Clone 7E3 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-123)

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### Certificate Of Analysis

1 µg/ml was sufficient for detection of PSD-95 on 20 µg rat brain tissue extract by ECL immunoblot analysis using Goat Anti-Mouse IgG: HRP as the secondary.

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## Biological Description

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### Alternative Names

PSD 95 Antibody, PSD-95 Antibody, DLG4 Antibody, SAP90 Antibody, Synapse-associated protein 90 Antibody, Postsynaptic density protein 95 Antibody, Disks large homolog 4 Antibody

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### Research Areas

Cell Signaling, Cell Structure, Neuroscience, Organelle Markers, Post-Synaptic Markers

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### Cellular Localization

Axon, Cell Junction, Cell membrane, Cell projection, Postsynaptic cell membrane, Postsynaptic density, Synapse

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### Accession Number

NP\_062567.1

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### Gene ID

29495

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### Swiss Prot

P31016

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### Scientific Background

Postsynaptic Density protein 95 (PSD95), also known as Synapse associated protein 90kDa, is a member of the membrane-associated guanylate kinase (MAGUK) family of proteins. PSD95 is a scaffolding protein and is involved in the assembly and function of the postsynaptic density complex (1). These family members consist of an N-terminal variable segment followed by three amino-terminal PDZ domains, an upstream SH3 domain and an inactive carboxyl-terminal guanylate kinase (GK) domain. The first and second PDZ domain localize NMDA receptors and K<sup>+</sup> channels to synapses, and the third binds to neuroligins which are neuronal cell adhesion molecules that interact with b-neurexins and form intercellular junctions. PSD-95 also binds to neuronal nitric oxide synthase, possibly through interactions between PDZ domains present on both proteins (2). Thus different PDZ domains of PSD-95 might be specialized for distinct functions (3, 4).

PSD95 participates in synaptic targeting of AMPA receptors through an indirect manner involving Stargazin and related

transmembrane AMPA receptor regulatory proteins (TARPs) (5). The protein is implicated in experience dependent plasticity and plays an indispensable role in learning (6). Mutations in PSD95 are associated with autism (7).

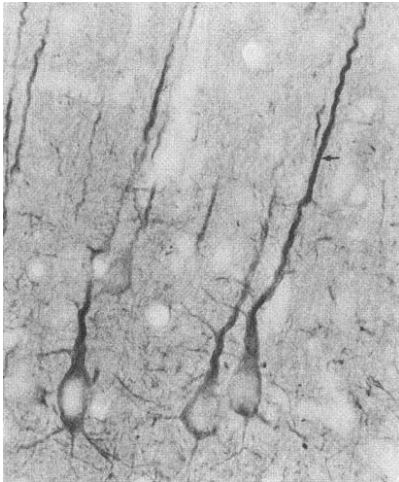
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## References

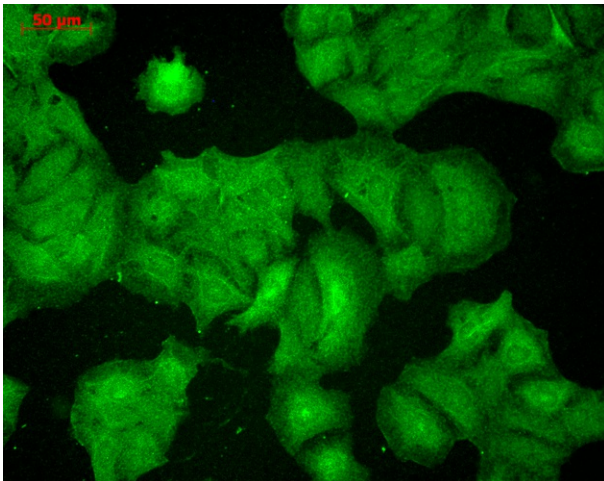
1. Chetkovich D.M., Bunn R.C., Kuo S.H., Kawasaki Y., Kohwi M., and Bredt D.S. (2002) *J Neurosci.* 22(15): 6415-25.
  2. Cao J., Viholainen J.I., Dart C., Warwick H.K., Levland M.L. and Courtney M.J. (2005) *J Cell Biol.* 168(1): 117-26.
  3. Kennedy M. (1997) *Trends in Neurosci.* 6: 264-268.
  4. Irie M. et al. (1997) *Science* 277(5331): 1511-5.
  5. Cai C. et al. (2006) *J Biol Chem.* 281: 4267-73.
  6. Yao W.D. et al. (2004) *Neuron* 41: 625-38.
  7. Cline H. (2005) *Curr Biol.* 15: R203-5.
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## Product Images

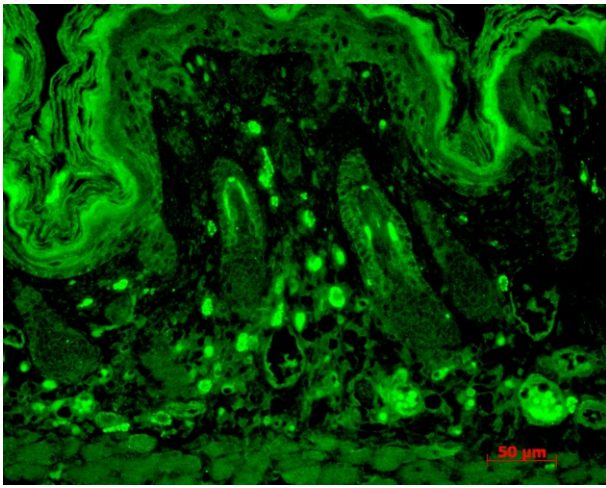
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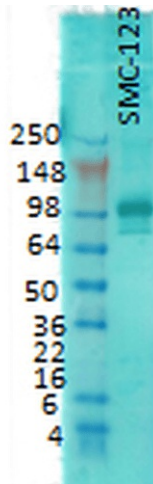
Immunohistochemistry analysis using Mouse Anti-PSD95 Monoclonal Antibody, Clone 7E3 (SMC-123). Tissue: Neocortex. Species: Rat. Primary Antibody: Mouse Anti-PSD95 Monoclonal Antibody (SMC-123) at 1:1000.



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-PSD95 Monoclonal Antibody, Clone 7E3 (SMC-123). Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol for 10 minutes at -20°C. Primary Antibody: Mouse Anti-PSD95 Monoclonal Antibody (SMC-123) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Filamentouslike staining.



Immunohistochemistry analysis using Mouse Anti-PSD95 Monoclonal Antibody, Clone 7E3 (SMC-123). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-PSD95 Monoclonal Antibody (SMC-123) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Basal cell staining in the epidermis, some hair follicle staining, dermal staining.



Western Blot analysis of Rat brain membrane lysate showing detection of PSD95 protein using Mouse Anti-PSD95 Monoclonal Antibody, Clone 7E3 (SMC-123). Primary Antibody: Mouse Anti-PSD95 Monoclonal Antibody (SMC-123) at 1:1000.

## Product Citations (2)

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### Other Citations

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#### **Biomarker Analysis with Grating Coupled Surface Plasmon Coupled Fluorescence.**

Mendoza, A., Dias, J.A., Zeltner, T. and Lawrence, D.A. (2014) J Adv Bio & Biotech. 1(1): 1-22.

**PubMed ID:**   **Reactivity:** Human   **Applications:** Antibody Microarray

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**PubMed ID:**   **Reactivity:** Mouse   **Applications:** Antibody Microarray

## Reviews

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There are no reviews yet.